Early Journal Content on JSTOR, Free to Anyone in the World

This article is one of nearly 500,000 scholarly works digitized and made freely available to everyone in the world by JSTOR.

Known as the Early Journal Content, this set of works include research articles, news, letters, and other writings published in more than 200 of the oldest leading academic journals. The works date from the mid-seventeenth to the early twentieth centuries.

We encourage people to read and share the Early Journal Content openly and to tell others that this resource exists. People may post this content online or redistribute in any way for non-commercial purposes.

Read more about Early Journal Content at http://about.jstor.org/participate-jstor/individuals/early-journal-content.

JSTOR is a digital library of academic journals, books, and primary source objects. JSTOR helps people discover, use, and build upon a wide range of content through a powerful research and teaching platform, and preserves this content for future generations. JSTOR is part of ITHAKA, a not-for-profit organization that also includes Ithaka S+R and Portico. For more information about JSTOR, please contact support@jstor.org.

COMPARATIVE STUDIES IN TAKELMAN, KALAPUYAN AND CHINOOKAN LEXICOGRAPHY

A PRELIMINARY PAPER[1]

By LEO J. FRACHTENBERG

INTRODUCTION

THE last ten years or so have witnessed an almost feverish activity in the field of American Indian linguistics, culminating in more or less successful attempts to reclassify and to reduce the seemingly too great number of linguistic stocks that are found on the American continent north of Mexico. It is by no means accidental that these efforts should have commenced at such a late date. It must be borne in mind that the real stimulus to a comprehensive and intelligent study of the various American Indian languages, both analytical and historical, came not from the writings of the earlier students but through the activities of Powell and Boas, especially through the comparatively recent undertaking of the latter to compile and edit a handbook of American Indian languages. Consequently, during the last ten years more voluminous data have been made accessible, in the form of grammatical sketches, vocabularies, and texts, than during any other previous period. The wealth of the material presented by the various investigators resulted in the perfectly natural tendency to look for and to establish, wherever possible, genetic relationships between the multiple linguistic stocks. Furthermore, it was perfectly natural that these reductive efforts should be applied to a field where the greatest multiplicity of stocks prevailed and where these stocks were observed to occupy a comparatively limited and, in most cases, continuous area. Two such areas, peculiarly adapted for investigations of this sort, were found: the Pacific Coast, and the region adjacent to the Gulf of Mexico; and regardless of the relative merits of the reductions that have been thus far made in the linguistic stocks of these two areas, it seems unlikely that the enormous multiplicity of languages in these two littoral regions should be purely accidental.

The greatest diversity of aboriginal languages obtains in California where, according to previous investigators, are found not less than twenty-one linguistic families, or over one-third of all languages known to have been spoken by the Indians north of Mexico. Consequently, the first efforts towards a possible reduction were made in the California area. In 1914 Dixon and Kroeber[2] presented evidence tending to show that the twenty-one languages of California may be reduced to twelve distinct stocks. They claimed that the Yokuts, Wintun, Costanoan, Maidu, and Miwok languages are reducible to one group, called the Penutian languages; that Karok, Chimariko, Shasta, Pomo, Esselen, Yana, and Yuman form another, the Hokan group; that Chumash and Salinan are related; and that Yurok and Wiyot had a common origin. Simultaneously with this announcement came Sapir's paper[3] attempting to demonstrate a genetic relationship between Wiyot, Yurok, and Algonkin. Before and after these reductive attempts Sapir[1] presented voluminous evidence for a genetic relationship between the Shoshonean, Piman, Sonoran, and Nahuatl languages.

---

[1] Published with permission of the Smithsonian Institution.

[2] New Linguistic Families in California (AANS, vol. iv, no. 4, pp. 647–655).

[3] Wiyot and Yurok, Algonkin Languages of California (AANS, vol. xv, no. 4, pp. 617–646).

From now on the comparative investigations shifted to the north. In addition to verbal announcements made on several occasions by Sapir of his belief that a genetic relationship may be ultimately established between the Takelma and Coos languages of Oregon, he wrote a preliminary paper[2] on the ultimate relationship between Athapascan, Haida, and Tlingit. In my own field I have collected a mass of material establishing a probable common origin for the Kusan, Siuslawan, Yakonan, and (perhaps) Kalapuyan languages which will be presented in the near future either in the conclusion to my grammatical sketch of the Alsea (Yakonan) language,[3] or else in a separate paper. I have, furthermore, gathered voluminous data supporting previously expressed contentions concerning the genetic relationship between Lutuamian, Wailatpuan, and Sahaptin, which will be published as soon as additional material from the Sahaptin field will be made available; and I have also good material for a comparative study of Salish, Chimakuan, and Wakashan. The latest efforts towards a re-classification of the Indian languages were made by Swanton[4] in the southeastern field which, however, are still in an experimental stage, although the Natchez-Muskhogean relationship would seem a practically established fact.[5]

To be sure, a number of these reconstructions are by no means new ideas. They were formulated by previous investigators who, for lack of suitable data, could merely indicate but not follow them up minutely. Thus, the Uto-Aztekan relationship was suspected long ago by Buschman and Brinton; similar ideas were held concerning Haida, Tlingit, and Athapascan by Boas and Swanton; marked resemblances between Siuslawan and Yakonan were first noticed by Latham and Gatschet; Gatschet and Hewitt were convinced of a genetic relationship between Lutuamian, Wailatpuan, and Sahaptin; and Boas long ago called attention to the marked structural agreements between the Salish, Chimakuan, and Wakashan languages. Thus, it will be seen that, in most cases, the younger linguists merely tried to follow up and develop the deductions arrived at by their predecessors.

Concerning the merits of the relationships that have been promulgated thus far in print, not all of them are tenable when subjected to the acid test of minute and scientific criticism. This is especially true of the several proposed reductions in California. Thus Dixon's and Kroeber's presentation of Penutian and Hokan are exceedingly inadequate, both methodologically and in regards to subject matter. The conclusions arrived at by these two students are based upon such fragmentary material and presented so scantily that, while their Penutian and Hokan relationships may be probable, they are by no means a certainty. Comparisons presented of five or more stems and of a few formative elements and not backed by exhaustive grammatical sketches, can not be accepted as conclusive evidence, and all judgment concerning the correctness of these conclusions must be withheld pending the introduction of additional and extensive data. During a recent visit to San Francisco I was accorded access, for a brief time, to the comparative vocabularies of the so-called Penutian and Hokan languages that have been compiled by Dixon and Kroeber, and while my superficial examination of this lexical material impressed me with the probable soundness of Dixon's and Kroeber's conclusions, I still must refuse to accept them as final, as long as these vocabularies are continued to be withheld from publication and until more morphological evidence is brought into play. Nothing is more dangerous and unsatisfactory in an investigation of this sort than to arrive at so-called final conclusions that are seemingly based solely upon lexicographical material. In the same way it would be wrong to deny the existence of a relationship between two languages, merely because the evidence of the lexical material is negative. It is well to bear in mind that in trying to establish genetic relationships between languages that seem to be, at first sight, non-related, lexical and morphological evidence must be treated separately, and that morphological evidence must be accorded greater weight. I believe it to be a fact, established by investigations in other linguistic fields, that lexicography is more easily subject to borrowing, to loss of words and stems, and to new additions; and that the formative elements and structure of a language are more stationary and less influenced by those of some neighboring tongue.[1] Of course, I am perfectly aware of the fact that instances may be cited where the morphology of one language has undergone changes due to borrowing. But these instances are so few that they, in no way, affect the correctness of my statement.

---

[1] Southern Paiute and Nahuatl—a Study in Uto-Aztekan (*Journal de la Société des Américanistes de Paris*, NS., vol. x, pp. 379–425; and AANS, vol. xvii, no. 1, pp. 98–120; *ibid.* no. 2, pp. 306–328).

[2] The Nadene Languages, a Preliminary Report (AANS, vol. xvii, no. 3, pp. 534–558).

[3] Now in course of publication by the Bureau of American Ethnology as part of volume ii of the Handbook of American Indian Languages.

[4] Linguistic Position of the Tribes of Southern Texas and Northeastern Mexico (AANS, vol. xvii, no. 1, pp. 17–40).

[5] Ethnological Position of the Natchez Indians (AA) vol. ix, no. 3, pp. 513–528).

The absence of conclusive evidence concerning Penutian and Hokan is the more unfortunate, as there exist strong reasons to believe that the Takelman, Kusan, Siuslawan, Yakonan, Kalapuyan, and (perhaps) Chinookan languages spoken in Oregon may be proven to be Penutian sister-tongues. For that reason, the additional collection of material from the Penutian field in California and the immediate publication of the data thus far collected would seem to constitute one of the most important tasks that confront the investigators in the California area. Without such material the Penutian theory must, for the time being, be held in abeyance, and the establishing of a relationship between California-Penutian and Oregon-Penutian must be deferred to the future.

Undoubtedly the strongest and best evidence adduced by Dixon and Kroeber is that upon which they base their conclusion concerning the genetic relationship between Yurok and Wiyot. The amount of lexical correspondences, the existence of phonetic shifts, and the presence of structural similarities are too numerous and too regular to be accounted for as due to accident or to borrowing, although it would be highly desirable to produce more evidence in the near future. But sufficient proof has already been furnished to justify a belief that additional material would rather increase than decrease the certainty of a genetic relationship between Yurok and Wiyot.

A very weak case of reduction is found in Sapir's previously mentioned attempt to classify Yurok and Wiyot as Algonkin languages, which, on the face of the evidence presented, is far from conclusive. The difficulties encountered by him were twofold: First, inadequate Yurok and Wiyot data, both grammatical and lexical; and, secondly, unfamiliarity with the intricate and complicated structure of the Algonkin languages. To the first are probably due the unsatisfactory and irregular correspondences quoted by him as based upon phonetic shifts, while the second has been responsible for the numerous comparisons of wrong morphological elements. Sapir's paper, more than any other effort, demonstrates the imperative necessity of basing all attempts at establishing relationships upon exhaustive and (phonetically) sound lexical material and upon comprehensive grammatical sketches. Still, his evidence for the probable Algonkin origin of Yurok and Wiyot is of such a character as to take it out of the "purely accidental" class and to justify further researches in this field. It is, therefore, desirable, even imperative that in the near future, the Wiyot language be made the object of a thorough investigation and that this investigation be carried on by some authority on the structure of the Algonkin languages. To my mind, such a study, whether positive or negative in its results, will contribute far more to the general problem presented by the American Indian languages, than can be said of the continued researches into the minutest details of Algonkin word-formation or into the dialectic differentiations within the Algonkin family.

---

[1] A paper dealing with this question and particularly showing how dialects may undergo considerable lexical changes and still retain their full original structure, is in the course of preparation.

On the other hand, Sapir's articles establishing relationships between Uto-Aztakan and between Haida, Tlingit, and Athapascan are most convincing. The comparative data presented in these two papers are so voluminous and conclusive, covering not only phonetics and lexical material but also morphology and structural correspondences that, to my mind, the unreserved acceptance, by all students of the American Indian languages, of a genetic relationship between the Shoshonean, Sonoran-Piman, and Nahuatl families on one hand, and of a similar affiliation between Athapascan, Haida, and Tlingit on the other hand, is only a question of time. The extreme likelihood of these two reductive theories is undoubtedly due to the fact that all comparisons have been based upon extensive material; and although some of the Nadene correspondence may, upon further investigations, prove to be erroneous, sufficient correspondences have been found to meet the requirements of even the conservative and exacting scholars.

I have purposely dwelt at such length upon the efforts of my co-workers to reclassify and to reduce a number of so-called independent stocks, so that my own conservative attitude towards a potential genetic relationship between the Takelman, Kalapuyan, and Chinookan languages may become clear. While carding and indexing my Kalapuya field-material (collected three years ago), preparatory to the writing of a grammatical sketch of these languages, I was forcibly struck by some marked correspondences in the lexicography of Kalapuya and Takelma, and of Kalapuya and Chinook. The Kalapuyan-Chinookan agreements are far less than those between Takelma and Kalapuya; and I am willing to admit that some of these correspondences may be due to borrowing or, in part, at least, to unconscious substitutions, by my informants, of Chinookan equivalents for Kalapuyan values. Such a possibility must by no means be disregarded, in view of the close proximity and long contact that has existed between the peoples speaking these two divergent languages. Still, some of these resemblances are so peculiar as to render the exclusive theory of borrowing rather doubtful, especially since all Kalapuya data are not yet available. On the other hand, the resemblances between Kalapuya and Takelma are much greater and far more numerous, although, as has been stated before, only part of the Kalapuya data have thus far been tabulated. I am certain that a complete analysis of the lexical material of all Kalapuya dialects will substantially add to the amount of comparative data. Whether such an analysis will bring forth close morphological and structural correspondences, I am as yet unprepared to say. I am at present working out minutely the morphological structure of the Kalapuya language and will, upon the completion of this work, institute comparisons between the morphological elements of Kalapuya and Takelma. I will, however, state that the highly specialized character of Takelma may prove a serious obstacle in the finding of many positive correspondences. However, this statement must be taken as only tentative. There are so many radical agreements and disagreements between the structures of these two languages, and the work on Kalapuya is in such a preliminary stage, that it seems highly desirable to be cautious and not to jump at any too hasty conclusions. But, the resemblances that have been observed thus far are so striking, and their bearing upon a general revision of our present classification of the languages of California and Oregon so important, that I feel justified in presenting these correspondences, deferring a conclusive discussion until all evidence has been carefully analyzed and critically sifted.

In view of the fact that only nineteen lexical correspondences have thus far been observed between Kalapuya and Chinook, while a comparison of Kalapuya and Takelma lexicography has yielded not less than fifty-five agreements, a discussion of phonetic shifts will be confined to only these two languages.

PHONOLOGY[1]

Pending the presentation of additional comparative data, no attempt will be made to establish probable vocalic shifts in these two languages. The vocalic systems of Kalapuya and Takelma differ but slightly. The characteristic umlauted *ü*-vowel and diphthongs of Takelma are missing in Kalapuya where, however, we meet with an umlauted *ä*-vowel and *öi*-diphthong. In the consonantic systems of the two languages we find close correspondences on one hand, and marked disagreements on the other hand, which would seem to place Kalapuya, phonetically at least, midway between the vocalic, musical languages of the south and the consonantic, harsh languages of the north. Thus, the surd lateral (*ʟ*) is missing in both, while its spirant equivalent (ł) occurs rarely. Similarly, the alveolar and palatal spirants (*c*, *x̭*) are lacking in both, and both languages show a constant variation between *s* and palatized *s* (*s̭*). Furthermore, the occurrence of aspirated surds (*p*ʻ, *t*ʻ, *k*ʻ) is exceedingly common in both languages. On the other hand, the Takelma consonantic system is characterized by the absence of velar sounds (*q*, *q!*), both of which occur in Kalapuya; and it lacks the labial spirant (*f*), the mid-patatal spirant (*x*), the anterior palatal surd (*k̭*), the linguo-dental surd (*ṱ*), and the long (doubled) laterals and nasals (*l*·, *m*·, *n*·), all of which are found in Kalapuya. Consonantic clusters occur in both languages, but they are greatly limited in numbers and can hardly be considered difficult.

Turning now to the question of possible phonetic shifts the following changes have been observed to occur with a marked degree of regularity:

Takelma[2] *b* is represented in Kalapuya by *p*, regardless of position. (In one instance a Takelma *b* in medial position would seem to correspond to a Kalapuya *m*. cf. T. t!ibis·ī′ⁱ ANT; K. t!moīs, ANT).

Examples:

T. beyan-, DAUGHTER; K. pī′ne, GIRL
T. bòpʻ, ALDER; K. pū’pʻ, ALDER
T. deᵉb-, TO ARISE; K. tāp-, TO STAND

Takelma *d* corresponds to a Kalapuya *t*, regardless of position.

Examples:

T. tʻa’d-, MATERNAL AUNT; K. tätʻ, MATERNAL AUNT
T. oᵘd-, TO LOOK FOR; K. ōt- . . . kwaʻ, TO LOOK FOR
T. dõᵘm, SPIDER; K. to’, SPIDER
T. dàn, ROCK; K. ta’ ROCK

Takelma *g* is represented in Kalapuya by *g*, *q*, *k* or *k̭*.

Examples:

T. tʻgwala’ᵃ, OWL; K. du′gulhu’, OWL
T. tʻgàm, ELK; K. tqa’, ELK
T. naga-, TO SAY; K. nakʻ-TO SAY
T. gā″m, TWO; K. k̭ē′mä’, TWO

---

[1] My phonetic transcription of Kalapuya sounds agrees in main with the recommendations made by the committee of the American Anthropological Association. No changes, however, were made in the transcription of the Takelma and Chinook words.

[2] The Takelma forms are quoted from Sapir's, "The Takelma Language of Southwestern Oregon," extract from Handbook of American Indian Languages (BBAE, 40, part 2).

Takelma *p*, *t* correspond, in most cases, to Kalapuya *p*, *t*.

Examples:

T. p!ãn, LIVER; K. pau', LIVER
T. t'pālt', SNAIL; K. tpoī't', SNAIL
T. t!ibis·ī'^{i}, ANT; K. t!moīṣ, ANT

Takelma *k* is represented in Kalapuya by *k*, *ḳ*, or *q*.

Examples:

T. duik!-, TO PUSH; K. t!oīk-, TO PUSH
T. dak'-, TO FINISH; K. t!ok-, TO FINISH
T. bo'īk', CHIPMUNK; K. po'yaq, SQUIRREL
T. k!as-, MOTHER'S PARENTS; K. ḳē'tṣo', GRANDMOTHER

Takelma *s* is found in Kalapuya as *s* or *ts*, while Takelma *ts* remains unchanged.

Examples:

T. gwisgwas, CHIPMUNK; K. kwi'se'k', CHIPMUNK
T. bāls, LONG; K. po's, LONG
T. s·om, MOUNTAIN; K. tṣē'mo', MOUNTAIN
T. al-ts·ìl, RED; K. tṣī'lolō', RED

Takelma *l*, *m*, *n* remain unchanged, except on occasions when they form diphthongs with a preceding vowel,[1] in which cases they are represented in Kalapuya by the glottal stop (').

Examples:

T. k'àl, PENIS; K. qal, PENIS
T. la^{a}law-, TO CALL; K. lalaw-, TO SHOUT
T. naga-, TO SAY; K. nak'-, TO SAY
T. mẽl, CROW; K. mo'la, CROW
T. bāls, LONG; K. po's, LONG
T. t'pālt' SNAIL; K. tpoī't', SNAIL
T. t'gàm, ELK; K. tqa', ELK
T. t'gū'm, RATTLESNAKE; K. tḳä', RATTLESNAKE
T. dàn, ROCK; K. ta', ROCK
T. p!ãn, LIVER; K. pau', LIVER

Takelma *x* apparently becomes *f* in Kalapuya.[2]

Examples:

T. mòx, GROUSE; K. muf, GROUSE
T. moxò, BUZZARD; K. tifo', BUZZARD

Takelma *h*, *y*, *w* remain unchanged in Kalapuya.

Examples:

T. hũlk', PANTHER; K. hū'tṣ, PANTHER
T. yok'y-, TO KNOW; K. yuk'-, TO KNOW
T. wog-, TO ARRIVE; K. ẁōk-, TO ARRIVE

Having thus discussed the phonetic shifts that apparently take place in the two languages, it now remains to present the lexical correspondences that have been found in both.

LEXICAL CORRESPONDENCES BETWEEN TAKELMA AND KALAPUYA

	TAKELMA	KALAPUYA
1.	bāls, LONG[3]	po's
2.	bẽ, SUN, DAY	pyä'n
3.	beyan-, DAUGHTER	pī'ne GIRL
4.	bobòp', SCREECH OWL	tpopo'
5.	bo'īk', CHIPMUNK	po'yaq, SQUIRREL
6.	bòp', ALDER	pū'p'
7.	dak'-, TO FINISH	t!ok-
8.	dàn, ROCK	ta'
9.	de^{l}b-, TO ARISE	tāp- TO STAND
10.	dẽl, YELLOW JACKET	tyäł
11.	dip', CAMASS	tīp'
12.	dõ^{u}m, SPIDER	to'
13.	-duik!-, TO PUSH	t!oīk-
14.	gā'm, TWO	ḳē'mä'
15.	gungun, (< *gun), OTTER	k!win
16.	gwãn, TRAIL	kau'ni'
17.	gwisgwas, (< *gwis), CHIPMUNK	kwi'se'k'
18.	ham- (ma-), FATHER	mä, mā'ma'[4]
19.	has-, MATERNAL UNCLE	ha's
20.	hilw-, TO CLIMB	hoīl-, hōl-
21.	hin- (ni-), MOTHER	nī[5]
22.	hũlk', PANTHER	hū'tṣ
23.	k'àl, PENIS	qal
24.	k!as-, MOTHER'S PARENTS	ḳē'tṣo', GRANDMOTHER
25.	la^{a}law-, TO CALL	lalaw-, TO SHOUT
26.	lõm, CEDAR	la'
27.	mẽl, CROW	mo'la
28.	mòx, GROUSE	muf
29.	naga-, TO SAY	nak'-
30.	o^{u}d-, TO LOOK FOR	ōt- . . . kwa'

---

[1] See The Takelma Language, *loc cit.* p. 10.

[2] The same change apparently also takes place between a Chinook *x* and a Kalapuya *f* (*cf.* Chinook tE'xEm, SIX; Kalapuya ta'fo SIX).

[3] Unless otherwise stated, the English equivalent is the same in both languages.

[4] Compare here Chinook -ma, -am FATHER.

[5] Compare here Chinook -naa MOTHER.

31.	p!ãn, LIVER	pau'
32.	p!òl, SOIL	plo'
33.	s·om, MOUNTAIN	ts͓ē'mo‘
34.	t‘ad-, PATERNAL AUNT	tät‘
35.	t‘aᵃg-, TO CRY	taq-
36.	t!e'weks, t!ẽwex, FLEA	twāq
37.	t!ibis·ī'ⁱ, ANT	t!moīs͓
38.	t‘gàm, ELK	tqa'
39.	t‘ga'nt‘gan (< *t‘gan), FLY	tka'naq
40.	tgū'm, RATTLESNAKE	tk̭ä'
41.	t‘gwala'ᵃ, OWL	du'gulhu'
42.	t‘pãlt‘, SNAIL	tpoī't‘
43.	al-ts·ìl, RED	tsīlolō‘ (< *tsīl)
44.	wai-, TO SLEEP	waī-
45.	woo-, TO GO FOR	wo-, wot-
46.	wog-, TO ARRIVE	wōk-
47.	xi'binì (< *xìn), THREE	psin'
48.	yãk‘w, WILDCAT	yē'kwa‘
49.	yalg-, TO DIVE	yauk-
50.	yèt, TEARS	ya't‘
51.	yoᵘg(w)-, TO MARRY	yūw-
52.	yok‘y-, TO KNOW	yuk‘-
53.	yõm, BLOOD	yū'

To these the following two additional correspondences may, perhaps, be added:

54.	bo'k‘d-an, NECK	pω'nıaq
55.	moxò, BUZZARD	tifo'

LEXICAL CORRESPONDENCES BETWEEN CHINOOK AND KALAPUYA

Let us now turn to the correspondences that have been observed between Chinook and Kalapuya. As has been stated before, these are less numerous. In this list are not included words that have been undoubtedly borrowed through the medium of Chinook jargon. The most interesting feature of these correspondences is found in the fact that, while in Chinook most of these words are stems that must be used with some affix, in Kalapuya they are treated as independent words. The following correspondences have been observed:

	Chinook[1]	Kalapuya
1.	-cā'yim, GRIZZLY BEAR	s͓a'yim
2.	-cgan, CUP	u's͓kan
3.	-'lxaiu, SEAL	u'lxayū
4.	koa'itst, NINE	kwī's͓ta
5.	-ma (redupl.), FATHER	mä, mā'ma‘
6.	-mō'lak, ELK	mū'lukwa, COW
7.	-naa, MOTHER	nī
8.	pā'L, pā'Lma, FULL	pā'łam, DRUNK
9.	pō-, TO BLOW	pūł-
10.	-pō'tsElal, KINGFISHER	ts͓a'lal
11.	ptcîx, GREEN	pts͓ix, BLUE, GREEN
12.	-qElEma, FALL SALMON	qa'l·am SILVERSIDE SALMON
13.	-qElō'q, SWAN	qo'l·oq
14.	-'qawEn, SILVERSIDE SALMON	qau'wan CHINOOK SALMON
15.	qoās (redupl.), CRANE	kwa'skwas
16.	qui'nEm, FIVE	wan'
17.	si'namôkct, SEVEN	psinmīwē'
18.	tE'xEm, SIX	ta'fo
19.	Lōn, THREE	psin'

CONCLUSION

The correspondences quoted on the preceding pages are by no means exhaustive; and, while it is highly probable that, upon further investigations, some of them may have to be disregarded, I feel reasonably certain that a great deal of additional comparative material will be disclosed in the near future. It will be remembered that thus far less than one-third of all available Kalapuya data have been carded. The highly polysynthetic character of Chinook would be sufficient to render a comparison between this language and Kalapuya (which is inflective *par excellence*) an almost hopeless task, were it not for the great lexical and structural divergencies that have been noted to exist within the Kalapuya dialects themselves. The Kalapuya family consists of seven distinct dialects that may be sub-divided into three separate groups: the Northern (embracing Yamhill and Atfalati); the Central (to which belong the Santiam, Lakmayut, Ahantsayuk, and Mary's River dialects); and the Southern group (consisting of Yonkalla). Now, while the work on each of these dialects is far from being completed, enough data have already been extracted to give us a bird's eye view of the lexical and structural differences that exist between the separate groups. Thus, some very distinctive traits have been noted in the northern group, where a great number of nouns which, in the other groups, appear as independent words, are treated as suffixed stems. For that reason, a conclusive discussion of the probable genetic relationship between Chinook and Kalapuya will depend largely upon whether the distinctive traits of the northern dialects are due to bodily borrowing from the immediately adjoining Chinook or whether they represent a survival of structural features that have become lost in the other dialects. Until this problem has been settled, we must refrain from jumping at any too hasty conclusions concerning the probable Chinook-Kalapuyan affiliations, no matter how tempting such conclusions may appear.

---

[1] All Chinook vocables are quoted from Boas, "The Vocabulary of the Chinook Language" (AANS, vol. vi, no. 1, pp. 118–147).

Turning now to the Takelma-Kalapuyan aspect, the possibilities of a probable ultimate relationship are much stronger, although in this case also extreme caution must be exercised, at least for the time being. The structural differences between these two languages are too great to be entirely wiped away because of lexical correspondences of even the closest type. I shall mention only some of the most salient distinctive traits. Nominal incorporation is lacking in Kalapuya, and pronominal incorporation is confined to the object. All subjective relations are expressed by means of the independent pronouns which precede the verb in the form of very loose prefixes; similarly possessive relations are expressed by means of loose prefixes. No distinction is made, in Kalapuya, by means of phonetic changes between aorist and non-aorist stems, tense being indicated by means of particles. On the other hand, there are evidences of structural elements which, when considered from a numerical point of view, would seem peculiarly typical of these two languages. Among these correspondences may be mentioned: the lack, in both languages, of a dual number; of an inclusive and exclusive person; the absence of nominal cases; the considerable use of end-reduplication and the total absence of initial reduplication; the presence of instrumental affixes denoting body-part nouns (in Kalapuya these appear as suffixed particles; in Takelma as prefixes); and the apparent absence of distinct verb-stems for the singular and plural.

To sum up, while the correspondences that have been noted between Kalapuya and Chinook on one hand, and between Kalapuya and Takelma on the other hand, are too numerous and too close to be explained away by a theory of accident or recent borrowing, they are not conclusive enough to constitute adequate proof for a genetic relationship between these three linguistic stocks. Such an assumption, to be correct, must be predicated upon the introduction of additional material, especially from the field of Kalapuya linguistics. And I make bold to predict that additional data will be produced in the near future, for, it must be remembered, this is after all only a preliminary paper.

BUREAU OF AMERICAN ETHNOLOGY
WASHINGTON, D. C.